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| APPLICATION NO.                                   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/604,590  | 08/01/2003  | Chin-Kun Hsieh       | ADTP0042USA         | 1589             |
| 27765   | 7590        | 06/07/2005           | EXAMINER            |                  |
| NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC) |             |                      | VO, TUYET THI       |                  |
| P.O. BOX 506                                      |             |                      | ART UNIT            | PAPER NUMBER     |
| MERRIFIELD, VA 22116                              |             |                      | 2821                |                  |

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/604,590

Applicant(s)

HSIEH ET AL.

Examiner

Tuyet Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.  
7) ☒ Claim(s) 11 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Remarks

**Amendment filed March 04, 2005 has not been persuasive due to a new ground rejection provided as follows.**

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 7, 12, 13, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrell (US Pat. 5,143,433).

Farrell discloses a back light unit (Figs. 1, 8 and 9) disposed under a display panel (12) comprising:

light tube generators (18) arranged in parallel for providing light sources;

an uneven diffusing sheet (16) interposed between the light source generators (18) and the display panel (12) for scattering the light sources generated from the light source generators to the display panel; and

a reflecting sheet (20) disposed under the light source generators (18) for reflecting the light sources upward to the diffusing plate (16), the reflecting sheet comprising a plurality of openings/slots (23) disposed directly under the light sources, wherein the openings/slots inherently functions as a mean for transferring an energy/heat of light sources.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of Yamamoto et al. (US Pat. 6,089,739), hereinafter Yamamoto.

Farrell discloses substantially the claim invention except for mentioning a housing disposed under and around a reflecting sheet while Yamamoto discloses a light source (Fig. 1) comprising a housing (7), disposed under and surround a reflecting sheet (3), having heat dissipating hole (7b).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a housing with heat dissipating holes as taught by Yamamoto into Farrell back lighting system in order to prevent/reduce damage due to thermal/electrical contact exposing to a user and the lighting system as well.

5. Claims 5, 8, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell.

Farrell discloses substantially the claim invention as noted above in that the width of slots are small and these slots disposed on the bottom of the parabolic reflecting sheet while the claim invention required the holes/openings being made at the top of the V-shape reflecting sheet with a width less than half width of the light tube.

It would have been an obvious matter of design choice to make/select reflecting sheet with any shape such as V-shape having any size of holes disposed at a side/bottom/top of the reflecting sheet in order to enhance the level of light energy radiation upon optimum sizes, shapes or location established between open slots and diffusing sheet so as to obtain efficiency of back lighting system as desired. Such implementation is considered as a routine skill in the art.

***Allowable Subject Matter***

6. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior fails to establish the housing comprises a plurality of heat dissipating holes as required in claim 11.

***Response to the applicant's arguments***

***In addition to the rejection noted above, some features of claim invention that the applicant and examiner have disagreed in views of Farrell's invention as followings:***

***1) The applicant points out the difference of the claim invention against the Farrell reference that the claimed invention discloses a plurality of openings below a light source while the openings from the Farrell's invention are located in between the primary light source and the secondary light source. Examiner sees no difference between the claim invention and Farrell's invention even that the openings from Farrell's invention located between two light source and that feature clearly states its self that the openings in the Farrell's invention are below one light source unless the claim invention restricts the openings must be below light source and no other light source under/below/around the openings.***

***2) The applicant also does not agree that the openings under light source functions as a mean for transferring energy/heat of the light source. Examiner believes that the radiation of the light source occurs in ambient area around the light source and any opening is a way/passage/door for passing the radiation of the light source. When the light source emits/radiates its energy as light luminosity through openings, the heat energy, is a part/form of light energy, also passes through the openings as well. In other words, wherever the light source transmits its light energy it***

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*transmits its heat energy as well. The more openings for transmitting the heat of light the less heat concentrate around the light source, the better performance of the light source due to less stress of high temperature surrounding.*

*3) The applicant alleges that a filter (39) under the openings from Farrell's invention even the filter and openings are between two light sources, the openings for the second light source passing to the first light source while blocking the first light source passing to the second. Examiner again believes differently because the filter (39) is not provided for totally blocking any light source located nearby through it and the second light source passing through the filter also proves that the filter itself is not a blocking object/plate. A degree/rate of transmitting light sources via the openings and the filter shows a dependence on specific size/shape of the openings and a type/size of the filter (col. 5, lines 12-18) wherein the filter may not much to concern for increasing the light transmission in Farrell.*

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is 571 272 1830. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

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A handwritten signature in black ink, appearing to read 'Tuyet Vo', written over a horizontal line.

Tuyet Vo

Primary Examiner

May 30, 2005